

Notice of Allowability

Application No.

09/755,405

Examiner

Li B. Zhen

Applicant(s)

GOODMAN ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response filed 02/02/2007 and interview on 2/22/2007.
2. ☒ The allowed claim(s) is/are 1-7, 10-21, 24-35 and 38-48, renumbered as claims 1-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 2/22/2007.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

M. WENGAL T. AN
SUPERVISORY PATENT EXAMINER
10/06/2007

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. David W. Victor on 22 February 2007.

The application has been amended as follows:

- a. Claim 1, line 11, delete the phrase ", wherein each of the communication, controller and component nodes"
- b. Claim 1, line 29, insert after "the message to the destination node through the communication interface" --; and--
- c. Claim 46, line 1, replace "method" with --system--
- d. Replace claim 29 with the following:

29. An article of manufacture comprising at least one of a hardware device having hardware logic and a computer readable storage medium having computer executable code for allowing communication among processing nodes in a system in communication with a host system, wherein each node includes a communication interface enabling communication between the nodes, wherein each node is associated with one component of the system, wherein the nodes include a communication node executing a host communication object, a component node executing a motion object,

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wherein the component node controls an electro-mechanical component of the system, and a controller node executing a work management object, wherein the controller node manages system commands, wherein the article of manufacture includes:

code executed by the host communication object to:

receive a command from the host system to instruct the motion object to control the electro-mechanical component of the system to perform an operation;

generate a message, including the command to instruct the motion object, to send to the work management object, wherein the controller node routes the message to the work management object;

source program logic implemented in the communication, component, and controller nodes, wherein the communication, component, or controller node executing the source program logic comprises a source node, wherein the source program logic causes the source node to perform:

(i) receiving a request from a source object executing in the source node to send a message to a destination object executing in a destination node,

(ii) determining whether the destination node and source node are a same node;

(iii) invoking an operating system command to transmit the message to the destination object within the source node if the destination node is the source node; and

(iv) transmitting the message to the destination node through the communication interface if the destination node is not the source node; and

destination program logic implemented in the communication, component, and controller nodes, wherein the communication, component, or controller node executing the destination logic comprises a destination node, wherein the destination program logic causes the destination node to invoke an operating system command to transmit the message received from the source node to the destination object within the destination node.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

The prior art of record does not expressly teach or render obvious the invention as recited in independent claims 1, 15 and 29.

The prior art teaches a system for allowing communication among processing nodes in a system [col. 5, lines 23 – 35 of Pettus], comprising: receiving, in a source node [col. 9, line 57 – col. 10, line 16 of Pettus], a request from a source object executing in the source node [col. 5, lines 23 – 36 and col. 18, lines 4 – 28 of Pettus] to send a message to a destination object executing in a destination node [col. 9, line 57 – col. 10, line 16 of Pettus], determining, in the source node, whether the destination node and source node are a same node [col. 5, lines 23 – 36 and col. 18, lines 50 – 63 of Pettus], invoking an operating system command in the source node to transmit the message to the destination object within the source node if the destination node is the source node [col. 5, lines 23 – 36 of Pettus and col. 11, lines 3 – 20 of Talluri]; and if the destination node is not the source node [col. 5, lines 30 – 36 of Pettus], then (i) invoking

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an operating system command in the destination node to transmit the message to the destination object within the destination node [col. 5, lines 36 – 49 and col. 10, lines 16 – 25 of Pettus and col. 13, lines 5 – 45 of Talluri]; and (ii) transmit the message to the destination object within the destination node [col. 10, lines 26 – 33 of Pettus].

However, the prior art does not teach a communication node executing a host communication object; a component node controlling the electro-mechanical component and executing a motion object; a controller node executing a work management object and managing system commands; the host communication object receives a command from the host system to instruct the motion object executing in the component node to control the electro-mechanical component of the system to perform an operation; the host communication object generating a message including the command to instruct the motion object, to send to the work management object; and operating, by the communication, controller and component nodes, as a source node receiving a request from a source object in the source node to send a message to a destination object executing in a destination node.

In addition, the prior art of record does not provide a basis of evidence for asserting a motivation that one of ordinary skill level in the art at the time the invention was made would have integrated or modified the computer system to include the features of a communication node executing a host communication object; a component node controlling the electro-mechanical component and executing a motion object; a controller node executing a work management object and managing

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system commands; the host communication object receives a command from the host system to instruct the motion object executing in the component node to control the electro-mechanical component of the system to perform an operation; the host communication object generating a message including the command to instruct the motion object, to send to the work management object; and operating, by the communication, controller and component nodes, as a source node receiving a request from a source object in the source node to send a message to a destination object executing in a destination node as recited in the context of independent claims 1, 15 and 29.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONTACT INFORMATION

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

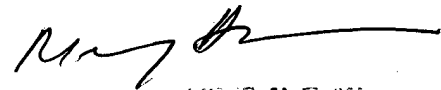
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
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